

Chemistry Division ES&H

January 2000

Items to cover

Web site for Chemistry ES&H <http://chemistry.anl.gov/ESH>

- Integrated Safety Management
 - Report from pre-verification in 1999 of ISM
 - Preparation for full verification starting this month.
- Safety Procedures
 - Stop Work Authority
 - Identify the hazards
 - Training & PPE
 - Documentation



Integrated Safety Management

ANL ISM web site – <http://www.anl.gov/ISM/home.pdf>

- Pre-verification – May 1999
- Full verification
 - January 19-21 Orientation
 - February 7-18 Verification

Integrated Safety Management

Pre-verification – <http://www.anl.gov/ISM/PRE/prerpt.pdf>

- Corrective action plan - <http://www.anl.gov/EQO/catrack/9909doe.pdf>
- Significant items included:
- Documentation – division and group need to be updated
- Identify hazards – need to consider all potential hazards before performing work.
- Use Lock Out and Tag Out (LO/TO) to control hazardous energy – especially during servicing



Integrated Safety Management

Full verification – Do work safely

Full Verification of ISM – <http://www.anl.gov/EQO/ISM/ism.pdf>

- Ask staff members questions
 - What is ISM? A framework for ensuring that work is done safely
 - What does it cover? Environment, health, worker safety, public safety
 - Who is responsible? Everyone from the director to the worker
 - Supervisors are responsible for defining scope, identify hazards, and controls are respected
 - Workers are responsible for doing work safely, complying with requirements.
 - Everyone is responsible for reporting deficiencies and stopping unsafe work.



Integrated Safety Management

Full verification – Do work safely

Full Verification of ISM – <http://www.anl.gov/EQO/ISM/ism.pdf>

- Types of questions about your work
 - What are the hazards of your job? **Safety Reviews**
 - What can go wrong? **Safety Reviews**
 - If something goes wrong what do I do? **Call 911**
 - Has the work be analyzed by a qualified person? **Safety Reviews**

Answer in plain language. Describe your work in your terms. You are not expected to know DOE rules numbers or Manual Chapter numbers. You should know that you can obtain the information from the group Safety Reviews, and from CHM and ANL ESH Safety Manuals. It is fine to say we will look it up.



Safety Procedures

Important items

- Stop Work Authority
- Identify hazards
- Training & PPE
- Documentation

Safety Procedures

Stop Work Authority

- **Everyone at ANL has Stop Work Authority!**
- This means that if you are asked to perform work that you think may be unsafe then you can stop it!
- If you see others doing work that you think is unsafe then you can stop them from doing it.
- If you are uncomfortable with this you may report the matter to your supervisor, the ESH/QA Coordinator, the Division Director, or the Building Manager.

Safety Procedures

Identify Hazards

- List of potential hazards available at ANL ESH Manual
[Chapter 21-2](#) [Appendix A](#)
- Things that are frequently overlooked
 - electric shock
 - pressure release from pressurized or vacuum systems
 - falls and trips
 - stored energy
 - corrosives / flammables
- When writing or revising Safety Reviews, PRDs and SOPs
- Check Chapter 21-2 on writing safety reviews and Appendix A to consider potential hazards

Safety Procedures Training and PPE

In the event of an accident or incident two of the first things that are checked are

- Training – Is the worker qualified to perform the work
 - Argonne restricts people from doing work when training requirements have not been met. Expired training is tracked.
- PPE – Personal protective equipment
 - Safety glasses are to be worn in all laboratories
 - Lab coats, goggles, dosimeters, and other equipment as designated in manuals, reviews, and procedures.
- This is especially true in radiologically controlled areas.
 - The recent news reports reflected Price Anderson violations



Safety Procedures - Documentation

- ANL ES&H manuals are primary policies. <http://www.anl.gov/ESH>
- Chemistry Division ES&H manuals more specific policies
 - <http://chemistry.anl.gov/ESH>
 - Includes current (control) versions of safety manuals
- Group documents
 - Project Review Documents
 - Safety Reviews
 - Laser Standard Operating Procedures
 - Laboratory / Instrument Procedures
- When you post a procedure – **Sign and date procedure**
- Documents should be updated as procedures change
- Documents should be reviewed periodically (at least biannually)